Records of the Western Australian Museum **20**: 51–55 (2000).

Amblypomacentrus clarus, a new species of damselfish (Pomacentridae) from the Banggai Islands, Indonesia

Gerald R. Allen[1] and Mohammad Adrim[2]

[1] Department of Aquatic Vertebrates, Western Australian Museum, Francis Street, Perth, Western Australia 6000, Australia

[2] Pusat Penelitian dan Pengembangan Oseanologi – LIPI, Box 580 DAK, Jakarta11001, Indonesia

Abstract – A new species of pomacentrid fish, *Amblypomacentrus clarus*, is described from 4 specimens, 26.1-40.3 mm SL from the Banggai Islands, off central-eastern Sulawesi, Indonesia. It closely resembles *A. breviceps* (Schlegel and Müller), the only other species in the genus. Colour pattern differences constitute the main criteria for separating the two species. The pattern of three dark bars is more highly contrasted in *A. clarus*, and this species lacks rows of light blue spots on the side and a yellow suffusion on the lower body, features usually evident in *A. breviceps*. There are also differences in lower limb gill-raker counts and tubed lateral-line scales, with 16 lower-limb rakers and 15 tubed lateral-line scales in *A. clarus* and usually 14–15 rakers and 16–17 tubed scales in *A. breviceps*. *Amblypomacentrus clarus* is known only from the type locality, where it is sympatric with *A. breviceps*, affording ready comparison of the two species.

INTRODUCTION

Damselfishes (Pomacentridae) are among the most speciose and conspicuous of all fishes inhabiting tropical and subtropical reefs. The family was reviewed by Allen (1991), who recognized 321 species in 28 genera. Since the publication of this work 16 additional species have been described (Allen, 1992, 1993, 1994, 1999; Allen and Adrim, 1992; Allen and Rajasuriya, 1995; Allen and Smith, 1992; Moura, 1995; Randall, 1994; Randall and McCosker, 1992). Four additional species await description and three others, either inadvertantly omitted by Allen (1991) (*Chromis dispilus* Griffin) or recognized as a junior synonym [*Abudefduf declivifrons* (Gill) and *Dischistodus darwiniensis* (Whitley)] have been elevated to the rank of valid species. The only other change involves *Chromis megalopsis* Allen, which has been placed in the synonymy of *C. mirationis* (Allen, 1993). With these addtions and amendments, the known number of pomacentrid species now totals 344, including the new taxon described herein.

The present paper describes a new species belonging to *Amblypomacentrus* Bleeker, 1877 as defined by Allen (1991). The genus formerly contained a single species *A. breviceps* (Schlegel and Müller) inhabiting the East Indian region. The new species was observed and subsequently collected by the senior author during a marine conservation survey in the Banggai Islands off central-eastern Sulawesi in November 1998.

The methods of counting and measuring are the same as those described by Allen (1972) except the length of the dorsal and anal spines are measured proximally from the base of the spine rather than from the point where the spine emerges from the scaly sheath. The gill raker at the middle of the first branchial arch is included in the lower-limb count. The last dorsal and anal soft ray is split at the base and is counted as a single element. The fraction '1/2' appearing in the scale count above the lateral line refers to a small truncated scale at the base of the dorsal fin.

Counts and proportions appearing in parentheses apply to the paratypes. Type specimens have been deposited at Pusat Penelitian dan Pengembangan Oseanologi, Jakarta, Indonesia (NCIP) and the Western Australian Museum, Perth (WAM).

SYSTEMATICS

Amblypomacentrus clarus sp. nov.
Figure 1, Table 1

Material Examined

Holotype

NCIP 6186, 40.3 mm SL, Banggai Harbour, Banggai Island, Banggai Islands, Sulawesi, Indonesia (1°34.84'S, 123°20.01'E), 18 m, quinaldine sulphate and hand nets, G. Allen, 3 November 1998.

Paratypes

WAM P.31497-002, 3 specimens, 26.1–34.3 mm SL, collected with holotype.

Figure 1 *Amblypomacentrus clarus*, holotype, 40.3 mm SL, photographed underwater at Banggai Island, Indonesia in 18 m depth.

Table 1 Proportional measurements of type specimens of *Amblypomacentrus clarus* as percentage of the standard length.

Character	Holotype NCIP 6186	Paratype WAM P.31497-002	Paratype WAM P.31497-002	Paratype WAM P.31497-002
Standard length (mm)	40.3	34.3	31.5	26.1
Body depth	43.2	46.4	40.6	41.4
Body width	18.6	17.8	16.8	14.9
Head length	30.8	30.0	30.2	33.0
Snout length	6.7	7.0	6.0	6.1
Orbit diameter	9.9	11.4	12.4	13.4
Interorbital width	8.9	8.7	7.0	7.7
Caudal peduncle depth	15.4	14.3	14.3	14.9
Caudal peduncle length	15.6	15.2	15.2	17.2
Predorsal length	34.0	38.8	35.2	37.2
Preanal length	62.5	65.6	62.9	61.3
Prepelvic length	36.5	38.2	36.2	35.2
Length dorsal fin base	60.5	58.9	58.4	58.2
Length anal fin base	26.8	25.1	23.8	23.8
Length pectoral fin	25.8	26.8	25.4	25.7
Length pelvic fin	32.5	33.8	27.9	28.4
Length pelvic spine	18.1	19.8	17.5	18.0
Length 1st dorsal spine	5.5	5.2	4.4	8.0
Length 2nd dorsal spine	9.4	11.1	6.0	10.7
Length 6th dorsal spine	14.4	16.6	14.3	16.5
Length longest dorsal ray	24.8	20.4	18.7	20.7
Length 1st anal spine	5.0	6.7	5.4	5.0
Length 2nd anal spine	14.1	15.5	14.6	12.6
Length longest anal ray	23.1	21.6	18.7	18.4
Length caudal fin	41.2	33.8	32.1	31.4

Figure 2 *Amblypomacentrus breviceps*, about 55 mm SL, photographed underwater at Kimbe Bay, New Britain in 12 m depth.

Diagnosis

A species of the pomacentrid genus *Amblypomacentrus* with the following combination of characters: dorsal rays XIII, 10 or 11; anal rays II, 12; pectoral rays 16 or 17; gill rakers on first branchial arch 6 + 16; tubed lateral-line scales 15; colour in life white with three broad black bars, the first through eye, the second below anterior dorsal fin, and the third below last dorsal spines and first few soft dorsal rays.

Description

Dorsal rays XIII, 11 (10); anal rays II, 12; pectoral rays 17 (one paratype with 16); gill rakers on first branchial arch 6 + 16, total rakers 22; tubed lateral-line scales 15; vertical scale rows from edge of opercle to caudal fin base 27; scales above lateral-line to base of middle dorsal spines 1 1/2; scales below lateral line to anus 8.

Body depth 2.3 (2.2–2.5) in standard length; maximum body width 2.3 (2.4–2.8) in depth; head length contained 3.3 (3.0–3.3) in standard length; snout 4.6 (4.3–5.4), eye 3.1 (2.4–2.6), interorbital space 3.4 (3.4–4.3), least depth of caudal peduncle 2.0 (2.1– 2.2), length of caudal peduncle 2.0 (1.9–2.0), all in head length.

Mouth oblique, terminal, the maxillary reaching to a vertical slightly beyond anterior edge of eye; teeth of jaws uniserial, incisiform with broad flattened tips at front of jaws, smaller and conical posteriorly; about 32 teeth in lower jaw and 34 in upper; single nasal opening on each side of snout; nostril with a low fleshy rim; about 20 sensory pores on each side of snout-interorbital region; preorbital and suborbital relatively narrow, the greatest depth about one-third eye diameter, ventral margin smooth, but with fine serrations posteriorly on suborbital series; a double row of sensory pores on preopercle-subopercle series; posterior margin of preopercle finely serrate; opercular series smooth except a blunt, flattened spine present on upper edge of opercle, near angle, and similar, but smaller spine on uppermost edge, just below lateral-line origin.

Scales of head and body finely ctenoid; preorbital, suborbital, snout, lips, chin, and isthmus naked; preopercle with 3 scale rows (2 primary rows and row of smaller secondary scales near lower margin),

rear margin narrowly naked; dorsal and anal fins with a basal scaly sheath; proximal two-thirds of caudal fin covered by scales; pectoral fins covered by scales basally; axillary scale of pelvic fins about twice length of pelvic spine.

Tubed lateral-line scales ending below posterior spines of dorsal fin; pits or pores present on 2 scales immediately posterior to last tubed scale; a series of 8–9 pored or pitted scales mid-laterally on caudal peduncle extending to caudal base.

Origin of dorsal fin above third tubed scale of lateral line; spines of dorsal fin gradually increasing in length to about sixth spine, remaining spines slightly decreasing in length, except for last spine, which is slightly longer than preceding ones; outer margin of fin continuous without incisions between spines; first dorsal spine 1.7 (1.3–2.1) in second dorsal spine; second dorsal spine 1.5 in sixth dorsal spine; sixth dorsal spine 2.1 (1.8–2.1) in head; longest soft dorsal ray 1.2 (1.5–1.6) in head; length of dorsal-fin base 1.7 in standard length; first anal spine 2.9 (2.3–2.7) in second anal spine; second anal spine 2.2 (1.9–2.6) in head; longest soft anal ray 1.3 (1.4–1.8) in head; base of anal fin 2.3 (2.3–2.5) in base of dorsal fin; caudal fin emarginate with pointed lobes, the upper lobe of male holotype with short trailing filament, caudal-fin length 0.7 (0.9–1.0) in head length; pectoral fin relatively short, not quite reaching a vertical through origin of anal fin, the longest ray 1.2 (1.1–1.3) in head length; filamentous tips of pelvic fins reaching to about base of second soft anal-fin ray when depressed in male holotype, but barely reaching anal fin origin in paratypes; pelvic fin-length 0.9 (0.9–1.2) in head length.

Colour of holotype in alcohol: overall white to yellow white with three broad black bars as follows: one on head passing through eye, its maximum width 2.8 (2.4–2.5) in head length; one at level of dorsal-fin origin, tapered ventrally and extending to level of pectoral-fin base, its maximum width 1.9 (1.9–2.2) in head length; and one encompassing last dorsal spines and first few soft dorsal rays, extending to about mid side, but faintly evident to lower side, its maximum width 1.6 (1.8–2.2) in head length; upper surface of caudal peduncle and base of caudal fin faintly dusky grey; dorsal fins translucent except where interrupted by black bars; remaining fins translucent to whitish. The paratypes have a similar colouration.

Colour in life: overall white with three black bars as described above.

Remarks

This species is very similar to *A. breviceps*, differing mainly in live and preserved colour pattern. Juveniles are basically the same colour as adults in contrast to those of *A. breviceps*, which have a strong yellow hue on the lowermost part of the body and yellow pelvic and anal fins. The yellow hue on the lower body often persists in adults of *A. breviceps* and each scale on the side of the body has a small light blue spot, forming horizontal rows corresponding with each scale row. Moreover, the second and third dark bars of *A. breviceps* are usually linked by a broad dark band on the outer edge of the dorsal fin, in contrast to *A. clarus*, which has the two dark bars well separated. The dark bars of *A. clarus* are strongly evident in preserved specimens. The two posterior bars are as vividly contrasted as in live individuals, whereas these same bars in preserved *A. breviceps* form only abbreviated saddles on the upper back, with their extensions onto the middle of the sides barely evident. Specimens of *A. breviceps* examined from Sabah, Papua New Guinea, and Australia invariably had 16–17 tubed lateral line scales in contrast to 15 tubed scales in *A. clarus*. However, the single specimen of *A. breviceps* from the Banggai Islands (WAM P.31497-001) also had 15 tubed scales. The only other meristic difference detected is the number of lower-limb gill rakers, which usually number 16 in *A. clarus* and 14 or 15 in *A. breviceps*. The only exception was found among two lots containing six specimens of *A. breviceps* from Sabah, Malaysia examined at WAM. Two specimens had 16 lower-limb rakers, and the remainder possessed the typical count of 14–15.

Amblypomacentrus clarus is presently known only from the type locality, in contrast to *A. breviceps*, which is widely distributed in the Indo-Australian Archipelago. Locality records for the latter species include numerous Indonesian sites, Sabah, Philippines, New Guinea, New Britain, Solomon Islands, and northeastern Queensland. The two species were seen in close proximity in Banggai Harbour at depths between 18–25 m at the type locality of *A. clarus*. The habitat consisted of a sloping bottom of sand-silt with scant shelter in the form of scattered bottles, tyres, and other miscellaneous debris. Individuals of *A. clarus* were seen feeding a short distance above the bottom, presumably in search of planktonic food items.

It is named *clarus* (Latin: clear, distinct) with reference to the more vividly contrasted colour pattern in comparison with *A. breviceps*.

ACKNOWLEDGEMENTS

We thank Conservation International (CI) and especially Tim Werner, Director of CI's Coastal Marine Conservation Program, for providing the opportunity to visit the Banggai Islands. This expedition was supported and jointly sponsored by Lembaga Ilmu Pengetahuan Indonesia (LIPI) and Conservation International-Indonesia.

REFERENCES

Allen, G.R. (1972). *Anemonefishes, their classification and biology*. 288 pp. (T.F.H. Publications, Inc., Neptune, New Jersey).

Allen, G.R. (1991). *Damselfishes of the world*. 271 pp. (Mergus Publishers, Melle, Germany).

Allen, G.R. (1992). A new species of damselfish (genus *Pomacentrus*) from north-western Australia. *Records of the Western Australian Museum* **15**(4): 691–695.

Allen, G.R. (1993). Two new species of damselfishes (*Pomacentrus*), with comments on the validity of two additional pomacentrid fishes. *Revue Française d'Aquariologie*, **20**(1): 21–26.

Allen, G.R. (1994). Two new species of damselfishes (Pomacentridae) from Indonesian Seas. *Revue Française d'Aquariologie* **21**(3–4): 86–90.

Allen, G.R. (1999). Three new species of damselfishes (Pomacentridae) from Indonesia and eastern Papua New Guinea. *Revue Française d'Aquariologie* **25** (1998: 3–4): 99–105.

Allen, G.R. and Adrim, M. (1992). A new species of damselfish (*Chrysiptera:* Pomacentridae) from Irian Jaya, Indonesia. *Records of the Western Australian Museum* **16**(1): 103–108.

Allen, G.R. and. Rajasuriya, A. (1995). *Chrysiptera kuiteri*, a new species of damselfish (Pomacentridae) from Indonesia and Sri Lanka. *Records of the Western Australian Museum* **17**(3): 283–286.

Allen, G.R. and Smith, K.N. (1992). A new species of damselfish (Pomacentridae: *Stegastes*) from Ascension Island, Atlantic Ocean. *Records of the Western Australian Museum* **16**(1): 113–117.

Bleeker, P. (1877). Memoire sur les chromides marins ou pomacentroïdes de l'inde archipelagique. *Natuurkundige Verhandelingen der Hollandsche Maatachappij der Wetenschappen Haarlem* (Ser. 3), **2** (no. 6): 1–166.

Moura, R.L. (1995). A new species of *Chromis* (Perciformes: Pomacentridae) from the southeastern coast coast of Brazil, with comments on other species of the genus. *Revue Française d'Aquariologie* **21**(3–4): 91–96.

Randall, J.E. (1994). Two new damselfishes (Perciformes: Pomacentridae) from Arabian waters. *Revue Française d'Aquariologie* **21**(1–2): 39–48.

Randall, J.E. and McCosker, J.E. (1992). Two new species of damselfishes of the genus *Chromis* (Perciformes: Pomacentridae) from the South Pacific. *Proceedings of the California Academy of Sciences* **47**(12):329–337.

Manuscript received 6 August 1999; accepted 21 October 1999.